

ACCELEROMETER BASED ANGULAR POSITION SENSOR

ABSTRACT

An alignment system having an angular position sensing device using an accelerometer to determine the angular position of the device. Preferably, the angular position sensing device incorporates two dual-axis accelerometers oriented in a spaced apart relation for determining the angular position of a rotating body in space. The angular position sensing device is operable to account for centrifugal and angular acceleration errors due to the rotation of the rotating body in space, thereby providing an accurate angular position of the rotating body. The angular position sensor also determines the angular position of the rotating body based on a sensing axis having the greatest range of sensitivity according to the angular position of the rotating body.